

REMARKS

This is filed in response to the Final Office Action dated October 21, 2005, citing formal objection to claims 1 and 13 as allegedly indefinite, and rejecting claims 1, 3, 4, and 6-24 over the art. The cited references are Shavit et. al. (U.S. Patent No. 6,304,972 B2) and Sharma et. al. (U.S. Patent No. 6,249,818).

This **Amendment after Final Action** responds in full to the pending action, amending claims 1 and 13 for matters of form and amending claims 10 and 11 to clarify, still further, distinctions over the prior art. As discussed below, those claims as well as the others pending in this application are in condition for allowance.

Claim Rejection under 35 USC § 112

Claims 1 and 13 are rejected by the Examiner under 35 USC § 112, first paragraph, as allegedly failing to comply with the enablement requirement. The claims are amended to remove all such grounds for objection.

Claims 1 and 13 are also rejected by the examiner under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The applicants respectfully disagree with the Examiner that the phrase “such that” renders the claim indefinite in this regard. However, in order to expedite the prosecution of this application, the applicants have amended claims 1 and 13 by removing the objected-to phrase. No new subject matter is added.

Claim Rejection under 35 USC § 103

Claims 1, 3-4, and 6-24 are rejected by the examiner as being unpatentable over Shavit (U.S. Patent No. 6,304,972 B2), in view of Sharma (U.S. Patent No. 6,249,818).

Pending claim 1, recites a digital data computing method comprising executing a process that makes requests and that requires at least asynchronous responses to those requests to continue operation. This claim further recites that responses are generated to requests by a process are external to the process. The process continues operation as long as asynchronous responses are received to the requests, and otherwise discontinues operation.

Shavit does not teach or suggest, among other things, a computing method in which the externally-generated responses to requests made by a process are required in order to continue normal operation of that process — yet, in which the process has no real time dependency on those responses. In Shavit, the process making the requests, depends on responses to those requests to continue normal operation. For many programs, this real-time dependency would render the reaction time of such programs as unacceptable.

As discussed in the specification, methods according to the invention have a number of advantageous applications — e.g., allowing securely distributing software without rendering the reaction time of such programs unacceptable. For example, as discussed in the specification, “if a program P is split into a client program C and server program S, such that C communicates with S in the time interval between receiving a request and generating a response, then the observed reaction time of C may be substantially longer than the reaction time of P, and the performance of the split program would be unacceptable to the client” (page 7, lines 18-26). As would be plainly evident to one of ordinary skill in the art, the above statement implies that C, preferably does not maintain communication with S while waiting to receive a response from S. Hence, C is free to address other tasks in the time interval between generation of requests and receiving responses to those requests. Thus, in such embodiments, there is no real-time dependency of the software making the requests to receiving responses to those requests.

The second reference cited by the Examiner (Sharma et. al., U.S. Patent No. 6,249,818), teaches a computer-based method for permitting application programs running on a computer to obtain transport services from a set of transport providers also running on the computer and allowing the application to communicate on a network to which the computer is coupled. Sharma does not teach among other things using externally generated responses to continue or discontinue operation of a process. In Sharma, the application making requests and the transport service provider responding to those requests are on the same computer.

Thus, not only do Shavit and Sharma fail, individually, to teach or suggest the subject matter of claim 1, but together, they fail to teach it as well. For example, there is no suggestion in Shavit that the system it teaches could be improved by requiring the process making requests

to receive at least asynchronous responses to those requests in order to continue operation of that process, yet, in which the process has no real-time dependency on those responses. Nor is there any suggestion in Sharma, that its teachings could be applied to a system of the type disclosed by Shavit. Thus, there would be no incentive for a person of ordinary skill in the art of networking to combine these two otherwise unrelated references in an attempt to achieve Applicant's claimed invention. Nee, the Examiner's attempt to "build" the claimed invention from these two references is a result of hindsight alone.

Claim 13 parallels claim 1. Additionally, claim 13 recites a process or code executed at the client site that makes requests and requires at least asynchronous responses to those requests for normal operation. Claim 13 incorporates all the limitations of claim 1 and is as such, patentable for at least all the reasons mentioned above for claim 1.

Claims 10 and 11 are rewritten in independent form incorporating the limitations of claim 1 from which they depended. Claim 10, is patentably distinct from Shavit and Sharma for the reasons discussed above. However, claim 10 additionally recites that the generating step includes generated non-deterministic responses to the requests. In the illustrated embodiment, the non-deterministic responses are computationally difficult to generate without access to the source or other programming code underlying the protected software.

Shavit makes no mention of generating non-deterministic responses to requests from the client, e.g., to further enhance the security of the original program. Although, Sharma teaches the generation of asynchronous responses to requests from the client application, Sharma does not teach or refer to the generation of non-deterministic responses by transport service providers, as a method for securing their services. In view thereof, claim 10 is still more patentably distinct from the subject matter of Shavit and/or Sharma.

Furthermore, claim 11 additionally recites that access to at least some portion of the code from the original program, prior to its transformation into client and vendor programs, is necessary to generate the non-deterministic responses involved in securing the software. Neither Shavit or Sharma teach or disclose access to code prior to transformation as being necessary for securing software or for the generation of non-deterministic responses. Again, in view thereof, claim 11 is still more patentably distinct from the subject matter of Shavit and/or Sharma.

In conclusion, claims 10 and 11 are distinct from the teachings of Shavit and Sharma, and as such do not incorporate either individually or in combination the teachings of Shavit and Sharma. The claims that depend from or otherwise incorporate the limitations of independent claims 1, 10, 11, and 13 are as such patentable for at least the same reasons as claims 1, 10, 11 and 13.

CONCLUSION

This responds in full to the Office Action mailed October 21, 2005. In view of the foregoing remarks and amendments, it is respectfully submitted that the application is in condition for allowance. Accordingly, withdrawal of all objections and rejections is requested. We invite the examiner to call the undersigned attorney if the Examiner deems it necessary.

Dated: 2/21/06

Respectfully submitted,

By _____
David J. Powsner
Registration No.: 31,868
NUTTER MCCLENNEN & FISH LLP
World Trade Center West
155 Seaport Boulevard
Boston, Massachusetts 02210-2604
(617) 439-2717
(617) 310-9717 (Fax)
Attorney for Applicant